

## RESPONSE TO OFFICE ACTION

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**IN THE CLAIMS**

1. (Currently Amended) A method of plasma etching, comprising:  
introducing into an etch chamber a substrate having a layer of dielectric material is at least one of a ~~hafnium containing material, HfO<sub>2</sub>, ZrO<sub>2</sub>, ZrSiO<sub>2</sub>, HfSiO<sub>2</sub>, and TaO<sub>2</sub>~~; HfO<sub>2</sub>, ZrO<sub>2</sub>, ZrSiO<sub>2</sub>, HfSiO<sub>2</sub>, and TaO<sub>2</sub>;  
providing into the etch chamber a process gas comprising carbon monoxide and a halogen containing gas; and  
exposing the layer of dielectric material to a plasma formed from the process gas.
2. (Original) The method of claim 1 wherein the halogen containing gas comprises a chlorine containing gas.
3. (Original) The method of claim 1 wherein halogen gas comprises chlorine.
4. (Currently Amended) The method of claim 3 wherein said chlorine containing gas is ~~Cl<sub>2</sub>~~; Cl<sub>2</sub>.
5. (Currently Amended) The method of claim 4 wherein said providing step further comprises the step of:  
supplying 20 to 300 sccm of ~~Cl<sub>2</sub>~~ Cl<sub>2</sub> and 2 to 200 sccm of CO.
6. (Original) The method of claim 1 further comprising:  
maintaining a gas pressure of between 2-100 mTorr.
7. (Original) The method of claim 5 further comprising the step of:  
maintaining a gas pressure of 4 mTorr.

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8. (Original) The method of claim 1 further comprising:  
applying a bias power to a cathode electrode of 5 to 100 W.
9. (Original) The method of claim 6 further comprising:  
applying a bias power to a cathode electrode of 20 W.
10. (Original) The method of claim 1 further comprising:  
applying an inductive source power to an inductively coupled antenna of 200 to 2500 W.
11. (Original) The method of claim 5 further comprising:  
applying an inductive source power to an inductively coupled antenna of 1100 W.
12. (Previously Presented) A method of plasma processing, comprising:  
introducing into an process chamber a substrate having a layer of TaO<sub>2</sub>;  
introducing into the process chamber a process gas comprising carbon monoxide  
and a halogen containing gas; and  
exposing the layer of TaO<sub>2</sub> to a plasma formed from the process gas.
13. (Original) The method of claim 12 further comprising the step of:  
maintaining the substrate at a temperature between 100 to 500 degrees Celsius.
14. (Original) The method of claim 12 further comprising the step of:  
maintaining the substrate at a temperature of 350 degrees Celsius.
15. (Original) The method of claim 12 wherein the halogen containing gas comprises chlorine.

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16. (Original) The method of claim 12 wherein the halogen containing gas is hydrogen chlorine.

17. (Currently Amended) A method of plasma processing, comprising:  
introducing into the process chamber a process gas comprising carbon monoxide and a halogen containing gas; and  
exposing a substrate, disposed in the process chamber and having at least partially exposed material containing at least one of ~~ZrO<sub>2</sub> and ZrSiO<sub>2</sub>~~ ZrO<sub>2</sub> and ZrSiO<sub>2</sub>, to a plasma formed from the process gas.

18. (Original) The method of claim 17 wherein the halogen containing gas comprises chlorine.

19-20. (Cancelled)

21. (Previously Presented) A method of plasma etching, comprising:  
introducing into an etch chamber a substrate having a HfSiO<sub>2</sub> layer;  
providing into the etch chamber a process gas comprising carbon monoxide and a halogen containing gas; and  
exposing the HfSiO<sub>2</sub> layer to a plasma formed from the process gas.

22. (Previously Presented) The method of claim 21 wherein halogen gas comprises chlorine.